



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 2000
Alexandria, Virginia 22313-1400
www.uspto.gov

| APPLICATION NO. | FILED DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------------------------------------------------------|------------|----------------------|---------------------|------------------|
| 09/553,990 | 04/20/2000 | Yousuo Xu | 456962000200 | 5903 |
| 35236 | 7590 | 03/23/2004 | EXAMINER | |
| MORRISON & FOERSTER LLP 755 PAGE MILL RD PALO ALTO, CA 94304-1018 | | | LEUNG, JENNIFER A | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1764 | |
| DATE MAILED: 03/23/2004 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

| | |
|-------------------------------|---------------------------|
| Application No. 09/553,990 | Applicant(s) XU ET AL. |
| Examiner Jennifer A. Leung | Art Unit 1764 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 26 January 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY (check either a) or b))

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
 b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 708.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
 2. ☒ The proposed amendment(s) will not be entered because:
 (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
 (b) ☐ they raise the issue of new matter (see Note below);
 (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
 4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: of the reasons set forth in the Final Office Action.
 6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
 7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____

Claim(s) objected to: _____

Claim(s) rejected: 1-8

Claim(s) withdrawn from consideration: _____

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
 9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
 10. ☐ Other: _____

HIEN TRAN
PRIMARY EXAMINER

CONTINUATION OF 2. NOTE:

Applicants' proposed amendments necessitate further search and/or consideration, as the amendments to claim 1 raise new issue and further change the scope of the claimed invention by the deletion of functional limitations found in lines 8-11 and 13-17 and the addition of an "optional" limitation for the outlet zone in lines 18-19.

* * *

In response to Applicants' arguments under the section titled, Withdrawal of the Finality of the Rejection, the Examiner respectfully submits that Applicants' arguments are not found persuasive. Applicants argue,

"Each of the rejections based upon 35 USC 102 or 103 in the noted Office Action apply a reference not earlier applied against the claims. The Office Action suggests that such finality is proper because of '[a]pplicant's amendment.' This is not correct."

"The Office Action applied a specific portion of the [Dean] reference, a portion dealing with a regeneration section of a hydrocarbon catalytic cracking reactor system, in such a way that the reaction taking place within the regenerator was ignored. In summary, the rejection was simply that 'a reactor is a reactor.' The current rejections, based on the multiple references found in this Office Action, urges a similar basis by ignoring the functional limitations found in the claims relating to the 'configured to' parameters found in those claims."

"It is not applicants' amendments to the claims that causes the addition of the new prior art against the claims. Instead it was simply the inapplicability of the previous prior art to those claims."

The Examiner respectfully disagrees. As originally filed, Applicants claimed,

"A riser reactor .. which consists of a prelift zone, a first reaction zone, a second reaction zone with enlarged diameter, an outlet zone with reduced diameter along coaxial direction from bottom to top of the riser reactor, and the end of the outlet zone connects to a horizontal tube."

No functional limitations were originally recited for the first and second reaction zones of the riser reactor, and hence, the Examiner properly interpreted to claim's scope to cover any riser reactor possessing the claimed structural components, functionally capable of conducting any reaction, or as simply put by Applicants, "a reactor is a reactor." Thus, the Dean reference was applied as meeting the originally claimed structural components, despite the reference's teaching of conducting a regeneration reaction within the reaction zones.

In the response filed on August 21, 2003, Applicants amended the claim to recite,

"A riser reactor... wherein the riser reactor comprises...

- a) a prelift zone...
- b) a first reaction zone... wherein the first reaction zone is configured so that a *hydrocarbon cracking reaction taking place in the first reaction zone...*
- c) a second reaction zone... wherein the second reaction zone is configured so that a *hydrocarbon cracking reaction taking place in the second reaction zone...*
- d) an outlet zone..."

Applicants' amendment overcame the Dean reference, as the newly added limitations necessitated that the riser reactor be functionally capable of conducting a hydrocarbon cracking reaction within the respective reaction zones. In contrast, the riser reactor in the Dean reference is not functionally capable of performing the intended use of a hydrocarbon cracking reaction but is instead intended for performing a regeneration reaction, since a separate region in the apparatus of Dean is utilized for conducting the hydrocarbon cracking reaction. Thus, new references and new grounds of rejection were applied in order to meet Applicants' newly added functional limitations, making the Office Action FINAL.

In response to Applicants arguments that "functional limitations found in the claims in relation to the 'configured to' parameters" were simply ignored, please note that although patentable weight was given to the functional capability of the riser reactor to conduct a hydrocarbon cracking reaction within the respective reaction zones, the specific parameters relating to the hydrocarbon cracking reaction, i.e., reaction temperatures, ratios of catalyst to oil, reaction times, were not given patentable weight, as such parameters are not considered elements of the apparatus, but process limitations.

Hien Tran

HIEN TRAN
PRIMARY EXAMINER